



RESEARCH PROGRAM ON
**Climate Change,
Agriculture and
Food Security**



CCAFS CU CARBON FOOTPRINT REPORT 2013 AND ACTION PLAN 2014

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1. INTRODUCTION

In 2011 CCAFS Coordinating Unit (CCAFS CU) initiated a carbon footprint plan including emission reduction targets and offsetting. In 2012 the principle of the calculation model applied were reviewed and verified Grontmij A/S. According to the recommendations given by Grontmij A/S the model was adjusted and effort put into making the calculations more transparent and to ensure consistency for the production of comparable data over time. Hence, when reading the report it is important to keep in mind that only figures from 2012 and 2013 are directly comparable. The 2011 figures are produced using slightly different parameters and assumptions. That being said the 2011 figures still serve the purpose of indicating an overall trend in CCAFS CU Carbon Footprint.

In Figure 1 the Inventory boundary of CCAFS CU carbon calculations for 2012 and 2013 is illustrated. For an elaborate explanation of the most significant differences in the 2011 calculation model compared to 2012 and 2013, please refer to CCAFS Carbon Report 2012.

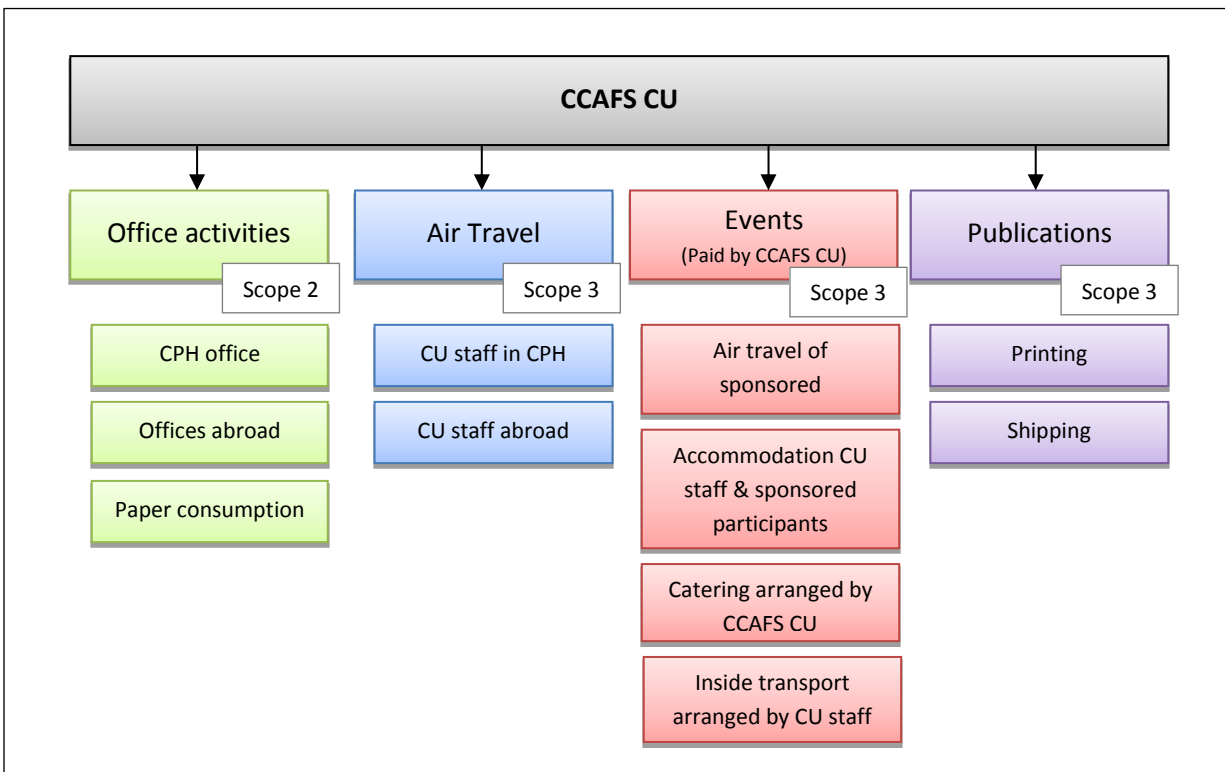


Figure 1, Inventory boundary of CCAFS CU GHG calculations

2. TRENDS IN BRIEF 2011-2013

An overall increase in total emission is seen from 2012 to 2013; this caused by an increase in the number of air travels of CCAFS CU staff. In 2012 only 61 air travels (return) were performed, whereas 77 air travels (return) were performed in 2013. Additionally two of the travels in 2013 were booked on business, whereas none of the travels in 2012 were business. For the three other categories (events, office activities and publications) the emissions are either the same as in 2012 or have decreased. Table 1, Figure 2 and Figure 3 illustrate the development from 2011 to 2013.

Table 1. Total Emissions 2011-2013				
<i>Annual Emissions for the years 2011-2013, divided between the four categories office activities, Air Travel, Events and Publications</i>				
	2011	2012	2013	unit
Scope 2				
Office Activities	9.14	13.8	14.0	tCO ₂ e
Subtotal Scope 2	9.14	13.8	14.0	tCO₂e
Scope 3				
Air travel CU	88.3	64.9	83.8	tCO ₂ e
Events without CU travel	9.62	51.8	45.4	tCO ₂ e
Publications	1.84	5.0	1.4	tCO ₂ e
Subtotal Scope 3	99.8	122	130.6	tCO₂e
Total	109	136	144.5	tCO₂e

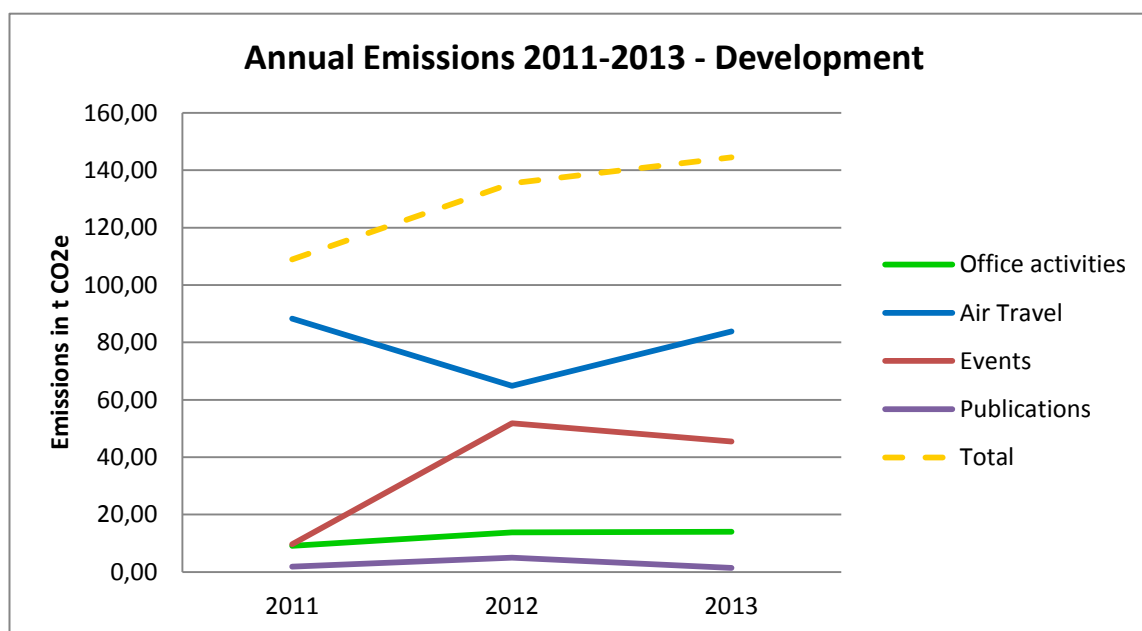


Figure 2. Illustrates the total annual emissions from 2011-2013; for each category (solid lines) and the total annual emissions (dotted line).

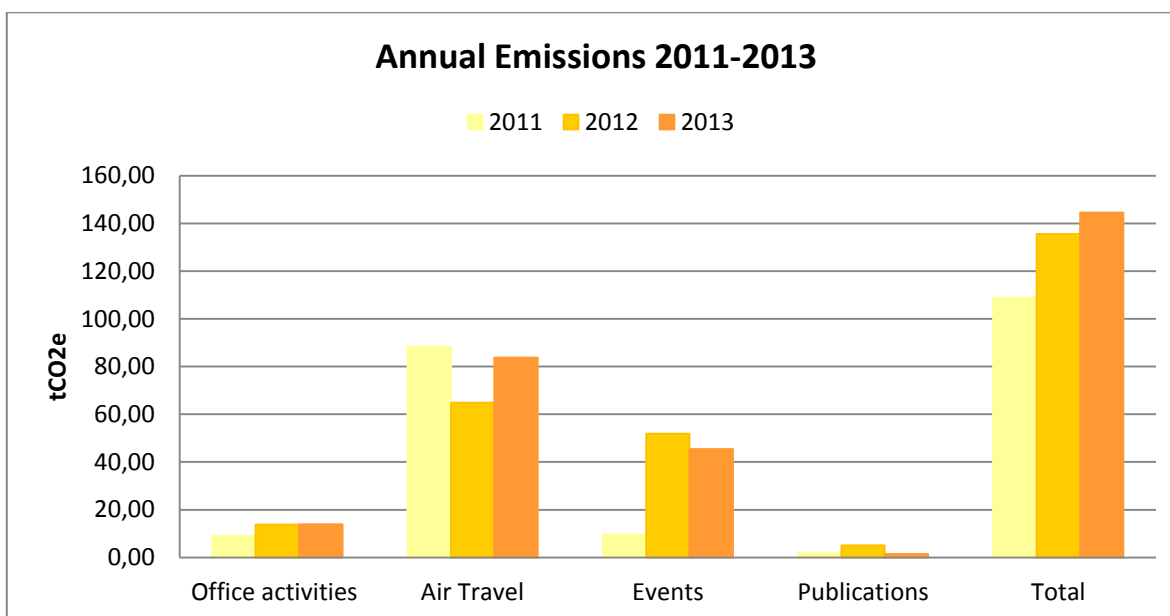


Figure 3; Illustrates the total annual emissions from 2011-2013; for each category (office activities, air travel, events and publications) and in total

The total GHG emission of CCAFS CU activities in 2013 is calculated to be **145 tCO₂e**. Compared to the 2012 emission of **136 tCO₂e** it is a **6 % increase**. The biggest source of emission is, by far, Air Travel of CCAFS CU staff. In 2013 this category accounted for 58 % of the total emissions, followed by event-related activities with 31 %, office related activities with 10 % and emissions related to print and shipping of CCAFS publications accounted for only 1 % of the total emissions. This is visualized in Figure 4.

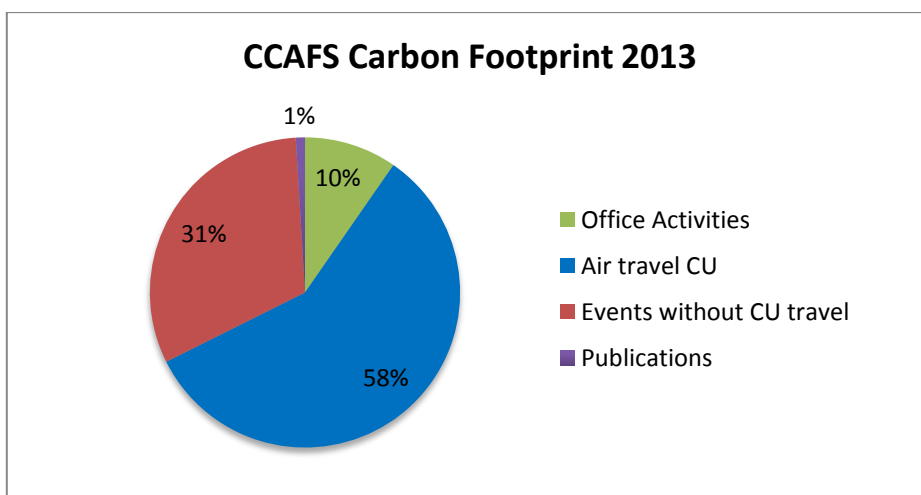


Figure 4; the main sources of emission are air travel by CCAFS CU staff and emissions from events hosted by CCAFS CU. These two categories account for 58 % and 31 % respectively. Office activities accounts for 10 % while printing and shipping publications only accounts for 1 % of the total emissions from CCAFS activities.

3. EMISSIONS OF CCAFS CU ACTIVITIES IN 2013

In this section each of the four categories are examined more thoroughly and the 2013 figures are compared to the 2012 figures. Reduction targets set for 2013 are evaluated and objectives for 2014 are proposed. The categories will be presented in order of importance for CCAFS total carbon footprint. Besides the initiatives described in the following, CCAFS CU has in 2013 initiated collaboration with ICRAF aiming at sharing and creating new knowledge and tools for reducing carbon emissions. In connection with the CCAFS Contact Point Meeting in London, Contact Points were presented with the activities by CCAFS and ICRAF and encouraged to implement similar actions to reduce carbon footprint.

3.1. AIR TRAVEL

This category comprises the carbon footprint associated with the air travel activities of CCAFS Coordinating Unit staff.

In 2013 the total emissions from air travel were **83.8 tCO₂e**; compared to 2012 where the emissions were estimated to be **64.9 tCO₂e**, hence an increase of **29.2 %**. The explanation for this increase is predominantly due to a higher number of air travels performed by CCAFS CU staff in 2013. Additionally two of the travels performed in 2013 were booked on business class accounting for 3 tCO₂e extra GHG emission. In Figure 5 the individual shares are illustrated and in Figure 6 the development from 2011-2013 is illustrated for each CCAFS CU staff member.

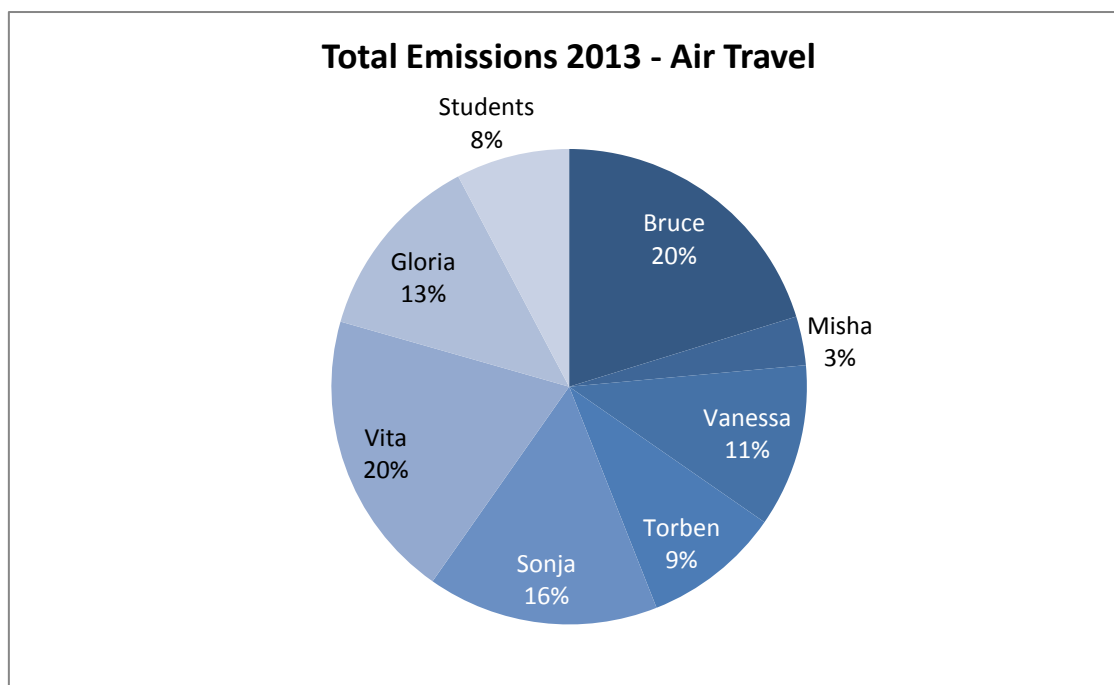


Figure 5; Individual emission shares in the category 'air travel' by CCAFS CU staff

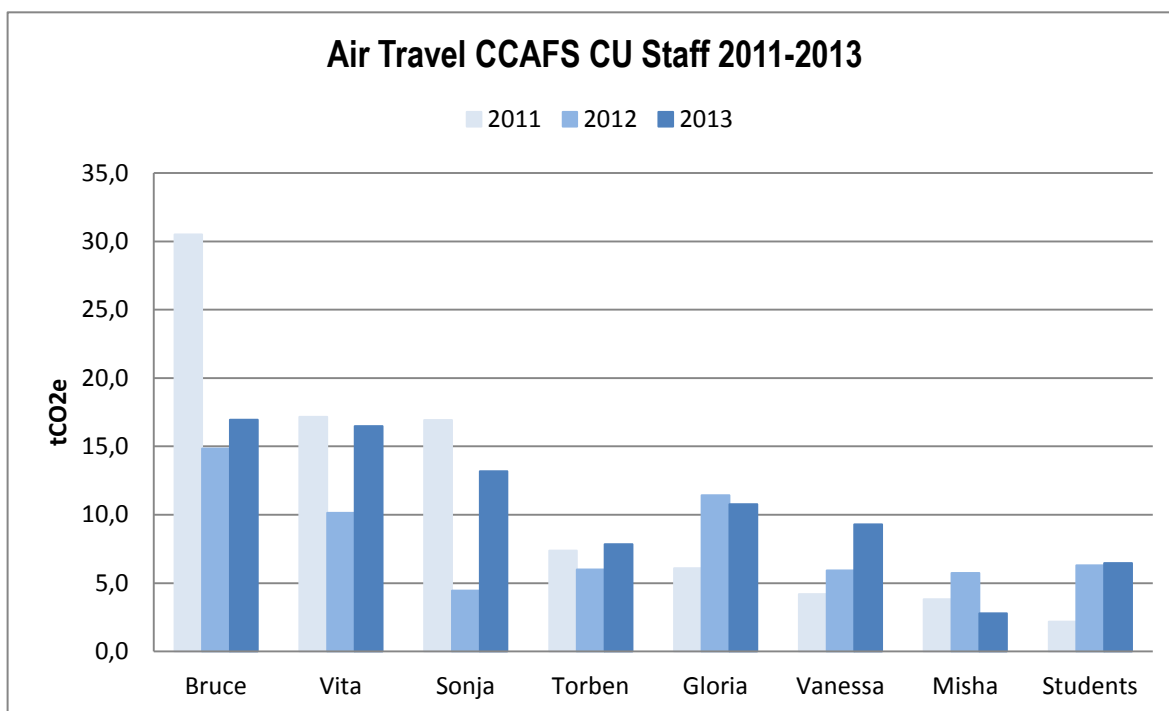


Figure 6; Illustrates the annual emissions 2011-2013 related to air travel for each CCAFS CU staff.

As illustrated in Figure 2 and Figure 6, the total annual emission related to air travel by CCAFS CU staff has increased compared to 2012. Looking at the emissions for each of the staff members, the most significant increases are observed for travels performed by Vita, Sonja and Vanessa but also for Bruce, Torben and the students emissions have increased. Only for Gloria and Misha emissions have decreased. The main reason for the increases in this category is due to an increased number of travels performed and travels on business class. Of the 77 travels performed in total 10% can be said to have a emission reduction potential, meaning that the emissions from these flight could have been reduced by either reducing the number of transits of choosing economy rather than business. If the reduction potential had been realized the total emissions related to air travel would have been lowered with 8.2 tCO₂e.

Evaluation of 2013 objectives

The overall objective for 2013 related to air travel by CCAFS CU staff, was reducing the number of flights. However, with a higher number of travels in 2013 and with some of them being booked on business class, this objective has not been obtained. In table X each objective is evaluated.

Table 2. Evaluation of 2013 objectives

Objectives for 2013	Evaluation of 2013 objectives
Investigate options for reducing the number of travels by providing feasible alternatives	<u>Not succeeded</u> , in 2013 the number of air travels by CCAFS CU staff has increased. In addition two of the performed travels have been booked on business class.
Prioritize trips and critically assess if physical presence is required	To be discussed at CU Retreat January 2014
Whenever possible and economically viable choose long-haul flight (more than 2000km) to minimize the number of transits	<u>Partially succeeded</u> ; at CCAFS CPH office choosing a flight with a minimal number of transits is taken into consideration when booking

Proposed actions for 2014

Looking at the evaluation for the 2013 objectives and the distribution of emission sources related to air travel, the following actions for 2014 are proposed:

- ✓ Keep encouraging staff to prioritize trips and critically assess if physical presence is required
- ✓ Continue to investigate other possibilities for event participation, e.g. video
- ✓ Whenever possible and economically viable choose long-haul flight (more than 2000km) to minimize the number of transits
- ✓ Reduce business class flights to a minimum
- ✓ Reduce the total emissions related to air travel to 2012 level by encouraging each staff member to perform one travel less in 2014 compared to 2013

3.2. EVENTS

This category comprises the emissions from events hosted or financed by CCAFS CU. The total emission from this theme is calculated from four sub-themes: 1) Air travel of sponsored participants, 2) Accommodation of CCAFS CU staff and sponsored participants, 3) Catering arranged and/or paid by CCAFS CU and 4) inside transport of CCAFS staff and arranged group transport. To avoid double-counting, air travel by CCAFS CU staff is not included.

In 2013 the total emissions related to CCAFS events were **46.7 tCO₂e**; compared to 2012 where emissions were estimated to be **46.6 tCO₂e**, this is a slight **decrease of 2 %**. Taking into consideration that five major events have been included in the 2013 calculations, whereas only four was included in the 2012 calculations, it seems reasonable to claim that improvements have been made. These improvements can be assigned an overall reduction in the number of sponsored participants and an increased emphasis on choosing good practice hotels over typical practice hotels. However, there is still room for improvement. Choosing a good practice hotel will reduce the emissions related to accommodation with more than 50 %.

Although, improvements have been made, the sub-categories *air travel of sponsored participants* and *accommodation* still account for the largest shares of the event-related emissions. The event-related sources of emission are illustrated in Figure 7 and 8.

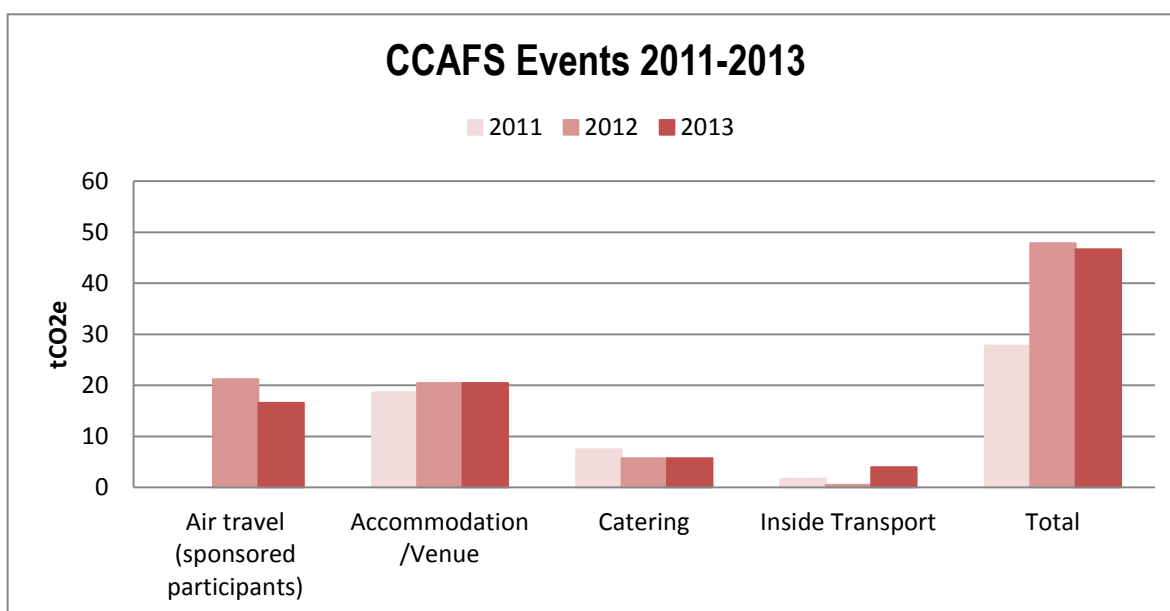


Figure 7; illustrating the sources of event-related emissions in the years 2011-2013. In total a reduction is seen, mainly due to a decrease in the number of sponsored participants.

Event emissions 2013 - by activity

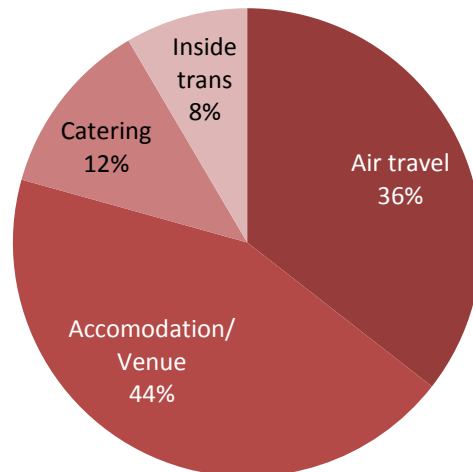


Figure 8; Illustrates the contribution of each event activity to the total event related emissions in 2013. The two activities contributing with the largest share is Accommodation/ Venue with 44% and air travel by sponsored participants with 36%. Catering and inside transportation accounts for 12 % and 8 % respectively.

Divided by events, Global Landscapes Forum accounts, by far, for the largest share of the emissions in this category. The main contributors to the emissions from this event are accommodation and air travel by sponsored participants. If a good practice hotel had been chosen the total emissions from this event would have been reduced with 25 % and the total emissions from all events by 11 %. This emphasizes the need for choosing good practice hotels whenever possible.

The event accounting for the next largest share of event-related emissions is the California Meeting in March 2013. Besides emissions from air travel by sponsored participants, inside transportation constitutes a substantial share of the total emissions from this event. This suggests a forward-looking emphasis on choosing hotels/venues located relatively close to the primary airport used by participants. Figure 9 and Figure 10 illustrates the percentage contribution of each event to the total event-related emissions and the sources of emissions for each of the major events in 2013.

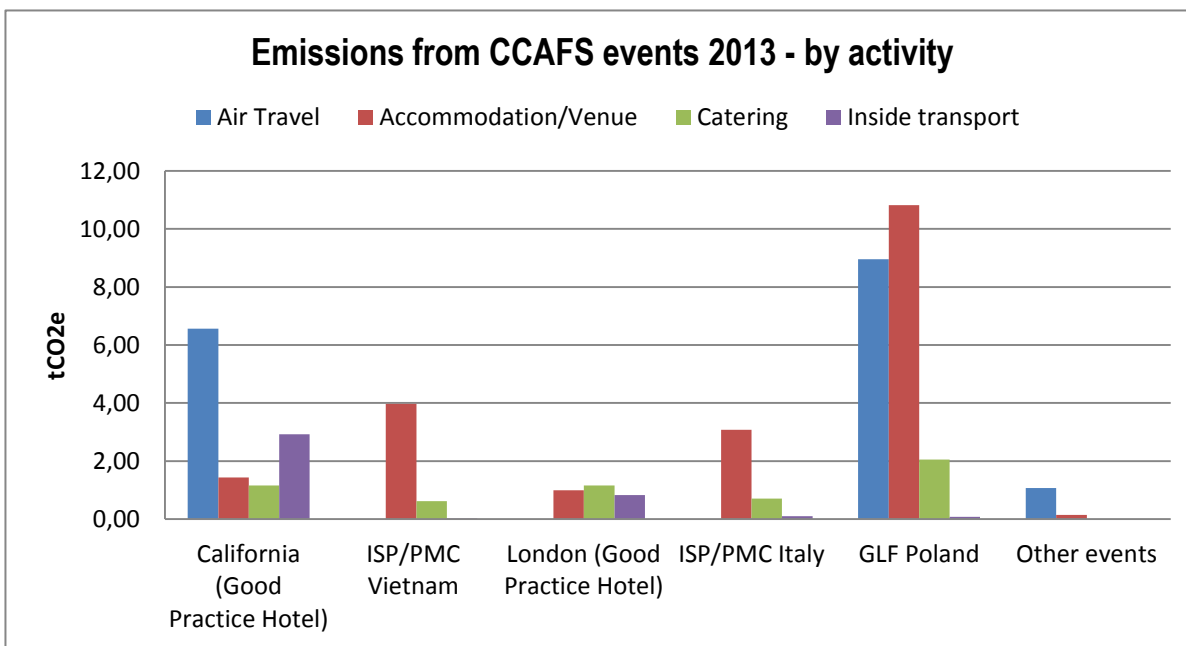


Figure 9; illustrating sources of emissions for each of the major events in 2013.

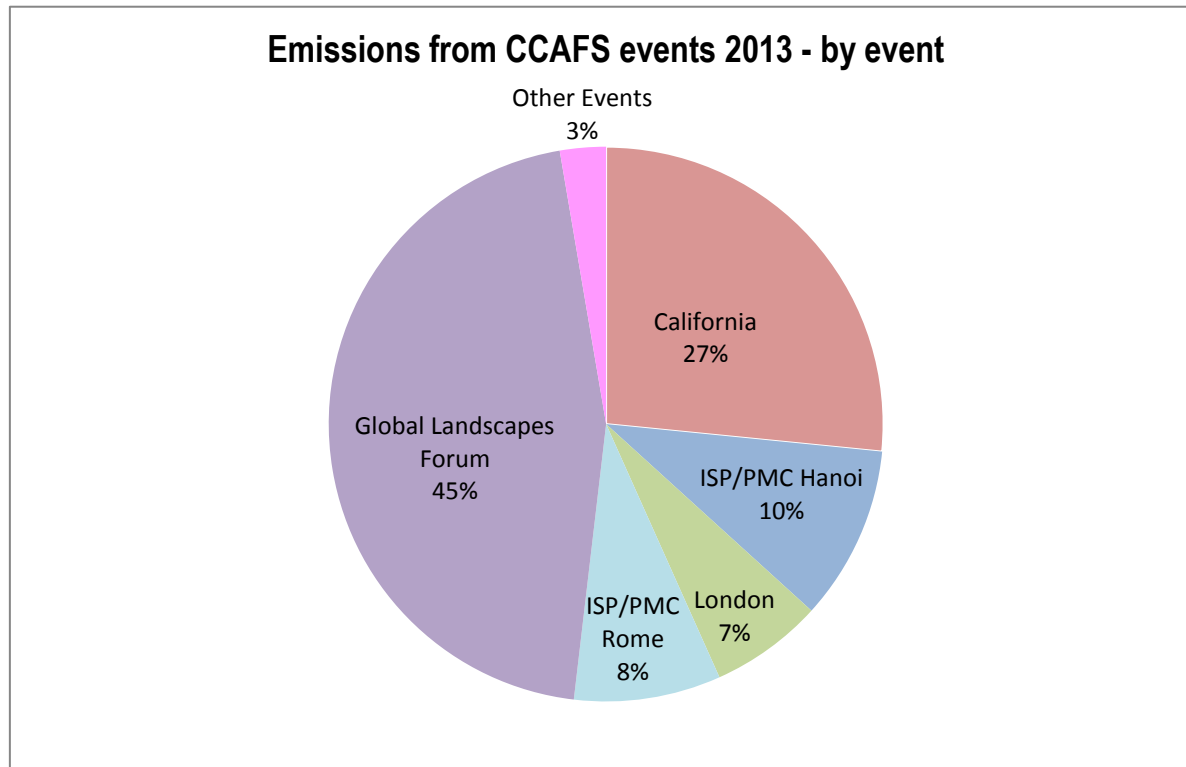


Figure 10; Emissions from CCAFS events 2013; percentage contribution of each major event

Evaluation of 2013 objectives

In Table 3 the 2013 objectives are listed and evaluated. The aim of reducing the total event related emissions can be said to have succeeded. However, there is still room for improvement especially for the emissions related to accommodation and air travel by sponsored participants.

Table 3. Evaluation 2013 objectives - Events

Objectives for 2013	Evaluation of 2013 objectives
Incorporate the eco-friendly check list into event planning tool and update continuously	<p><u>Partly succeeded</u>; during 2013 the event planning tool has been updated to incorporate the eco-friendly checklist. However, it has not been fully implemented meaning that the updated tool has not been applied in the planning of all the 2013 events. Some of the initiatives incorporated in the event planning tool are:</p> <ul style="list-style-type: none"> ✓ Selecting an eco-friendly hotel/venue: During 2013 choosing an eco-friendly hotel/venue has been used as a priority criterion for some events. ✓ Effort to reduce red meat meals: Whenever possible red meat meals have been replaced by white meat or fish meals. Only few vegetarian meals have been provided. Our efforts also include influencing meal choices of our event collaborators. ✓ Provide only tea, coffee and local fruits for the coffee breaks: This effort was successfully implemented in most of the CCAFS internal meetings
Incorporate voluntary offsetting notification into event planning tool	<u>Not successfully implemented in 2013</u> . For 2014 this effort is part of the event planning tool meaning that a voluntary offsetting note will be included in future event/meeting invitations.
Reduce the amount of sponsorships	<u>Succeeded</u> , in 2013 the number of sponsored participants has been reduced significantly compared to 2012.
Ensure paper-smart solutions	<u>Succeeded to a high degree in 2013</u> (see Publication section)
Encourage the use of public transportation whenever feasible	<u>Partly succeeded</u> ; When feasible and safe public transportations have been encouraged. However, there is still room for improvement especially in the choice of hotel/venue location.



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Proposed actions for 2014

Looking at the evaluation of the 2013 objectives and the distribution of emission sources related to events, the following actions for 2014 are proposed:

- ✓ Fully implementation of the updated greening event planning tool
- ✓ Whenever possible good practice hotels should be chosen. Only choosing good practice hotels would decrease CCAFS Carbon Footprint significantly
- ✓ Choose an event hotel/venue which is located relatively close to the main airport used by the participants or/and with good access to public transport
- ✓ Encourage the use of public transportation or try to provide shuttles/ group transportation for locations where public transportation is not feasible
- ✓ When reasonable, encourage participants to offset their individual carbon emissions when using transport to attend any of CCAFS related. The possibility of voluntary offsetting should be assessed for each event as a part of the planning process meetings/events (<http://www.carbonfootprint.com/calculator.aspx?tab=3>)
- ✓ Keep investigating new opportunities and tools for reducing event related carbon emissions

3.3 OFFICE

This category covers carbon emissions associated with CCAFS CU office related activities. The total emission is divided in three sub-categories: 1) energy consumption from CPH Office, 2) energy consumption from CCAFS CU offices abroad and 3) paper consumption at CPH office.

In 2013 the total emissions from office activities were **14.0 tCO₂e**; compared to the office related emissions in 2012 being **13.8 tCO₂e** this is **a slight increase of 0.7 %**. The explanation for this change should be found in an increase of total number of offices abroad. See Figure 11. Looking at the distribution of emission sources related to office activities CCAFS CU offices abroad is by far the greatest source, accounting for **69 %** of the total emission in this category. CCAFS CU CPH office accounts for 30 % of the total office related emissions, while paper consumption only accounts for 1 %. This is illustrated in Figure 12.

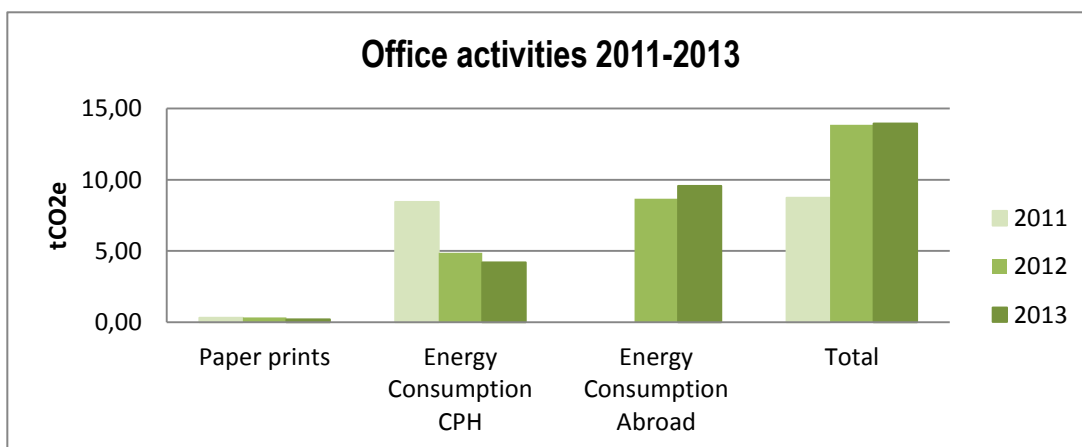


Figure 11; Illustrates the office related sources of emissions 2011-2013.

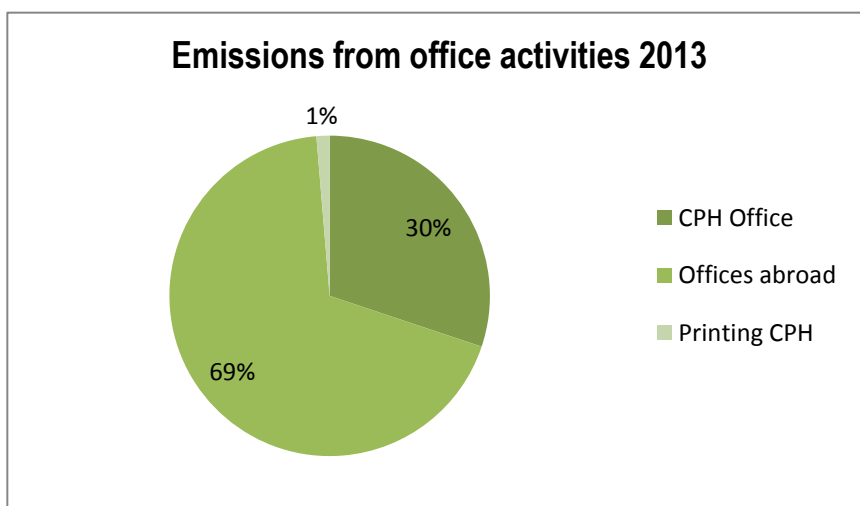


Figure 12; illustrates the contribution of each sub-category to the total office related emissions

Evaluation of 2013 objectives

In Table 4 the 2013 objectives are listed and evaluated.

Table 4.

Objectives for 2013	Evaluation of 2013 objectives
Offices abroad: Implementation of the green guidelines and eco-friendly use of air condition	Partly succeeded; To be discussed at CCAFS CU Retreat 2014
CPH Office: Continue the negotiations with Green Campus and Department regarding the possibility of installing electric meter and improve window insulation. Alternatively, an electric meter for measuring single electric devices could be considered purchased to determine where action is most needed	Partly succeeded; In 2013 technicians visited CPH office to investigate the possibilities of installing electric meter and improve window insulation. Improvements await Department decision.
Paper consumption: Continue looking into paper-smart solutions	Succeeded, 47 % less prints in 2013 due to no big print jobs in connection with meeting preparation.

Proposed actions for 2014

Looking at the evaluation for the 2013 objectives and the distribution of emission sources related to office activities, the following actions for 2014 are proposed:

- ✓ Continue to encourage eco-friendly office behavior
- ✓ Continue to look into paper-smart solutions

3.4. PUBLICATIONS

This section calculates CCAFS carbon footprint associated with printing and shipping CCAFS publications.

In 2013 the total emissions from CCAFS publications were **1.4 tCO₂e**; compared to 2012 where emissions were estimated to be **5 tCO₂e**, this is a **decrease of 72.5 %**. Both printing and shipping of publications have been significantly reduced in 2013 compared to 2012. The explanation for this is that less publications has been printed in total (use of storage and more paper-smart solutions) and that most of the printing has been done locally, near the event. In Figure 13 the sources of publication related emissions are illustrated.

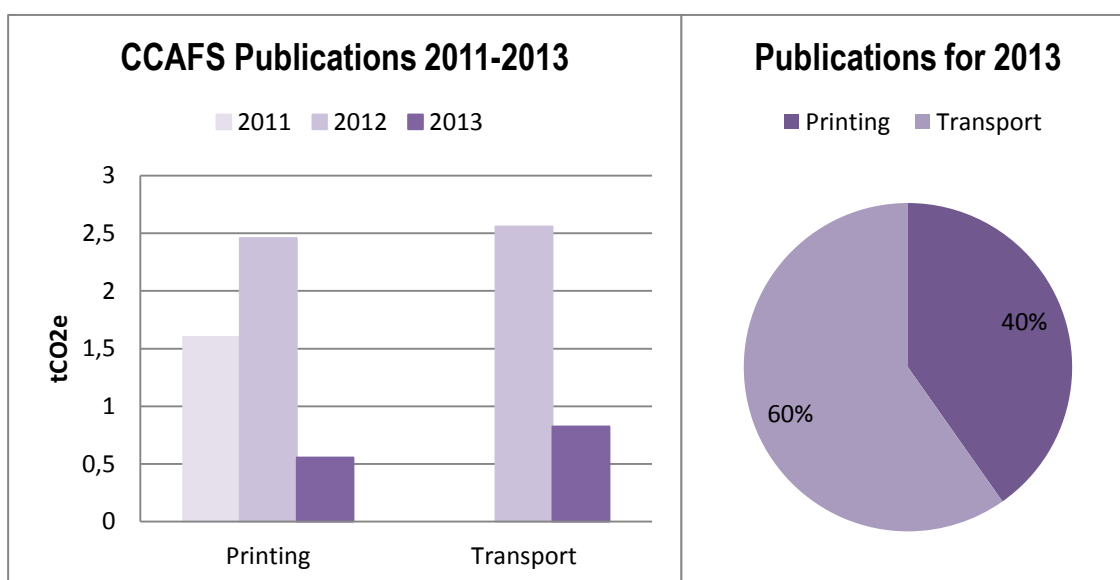


Figure 13; illustrates the sources of publication related emissions: development from 2011-2013 (left) and the percentage distribution 2013 (right)

Evaluation of 2013 objectives

In Table 5 the 2013 objectives are listed and evaluated.

Table 5. 2013 objectives

Objectives for 2013	Evaluation of 2013 objectives
Continue assessing and implementing paper-smart solutions, incl. scan codes on publications and other alternatives (website, CD-ROMs, USB-sticks, minor versions)	<u>Succeeded</u> ; Whenever feasible meeting and event material has been offered participants on USB-sticks. After meetings participants were encouraged to return the USB sticks for reuse in future meetings. However, printed meeting documents are still required by a few participants. Another initiative is the use of electronic guides, in which participants can access through their smart phones.
Reduce transportation of publications using above alternatives and ensure local printing when possible	<u>Succeeded</u> ; where possible publications have been printed in countries where events took place. Additionally, the use of a central distributing facility based in London ensures efficient shipping of publications.
Assess and ensure all CCAFS publications are eco-friendly certified (EU Ecolabel, Nordic Ecolabel, FSC etc)	<u>Succeeded</u> ; Printers are always requested to print on recycled or certified paper, and most are able to comply with this. However as the same publications are printed in different countries a specific ecofriendly trademark is not used.
Continuously improve registration of printing and shipping of publications	<u>Partly succeeded</u> ; a separate registration sheet for the purpose of carbon footprint calculations is not developed. However, staff members responsible for printing and shipping are now aware of the information needed to perform the calculations, meaning that the information for 2013 was easily obtained.
Continue and strengthen collaboration with colleagues and CGIAR-representatives based in the region where an event is held to assist with logistics and showcase CCAFS materials	<u>Succeeded</u> : comms team has collaborated closely with <u>CGIAR colleagues and delegated exhibit presence at several events</u>
OTHER ACTIONS IMPLEMENTED	In 2013 the booth banners for COP19 were printed on reusable materials so they can be used at future events. Additionally a portion of the leftover COP19 publications were donated to the University of Warsaw; other leftovers were taken back to Copenhagen, and the rest recycled



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Proposed actions for 2014

Looking at the evaluation for the 2013 objectives and the distribution of emission sources related to printing and shipping CCAFS publications, the following actions for 2014 are proposed:

- ✓ Continue to implement and improve on the initiatives implemented in 2013 including printing in host countries, printing on recycled/eco certified paper, and collaborating closely with CGIAR colleagues
- ✓ Reduce the number of printed publications for events and increase the number of USBs. In anticipation of this, we have already manufactured 1000 CCAFS branded USB sticks for future events

4. CCAFS CARBON FOOTPRINT ACTION PLAN 2014

	Objectives	Actions	Costs	Responsible
Scope 3				
Air Travel	To reduce emissions generated by CU travel	<p>Keep encouraging staff to prioritize trips and critically assess if physical presence is required</p> <p>Continue to investigate other possibilities for event participation, e.g. video</p> <p>Whenever possible and economically viable choose long-haul flight (more than 2000km) to minimize the number of transits</p> <p>Choose economy flights</p> <p>The aim for 2014 is to reduce the total emissions related to air travel by encouraging each staff member to perform one travel less in 2014 compared to 2013. The total emissions related to air travel activities should in 2014 not exceed the 2012 level</p>	<p>↘ less</p> <p>↘ if fewer flights)</p> <p>↗ as direct flights may be more costly</p> <p>↘</p> <p>↘</p>	<p>Misha/Anne</p> <p>Misha/individual</p> <p>Travel bookers</p> <p>Travel bookers/Bruce</p> <p>Misha/Anne</p>
Events	To reduce emissions generated by CU events	<p>Fully implementation of the updated greening event planning tool</p> <p>Whenever possible good practice hotels should be chosen. Ask hotels for Certified Environmental Management System/Green certificate (e.g. Green Hospitality Award, Green Tourism Business Scheme, ISO 14001, BS 8901 etc.) Also recycling or donation of food remains to surrounding poor community could be a priority criterion.</p> <p>Choose an event hotel/venue which is located relatively close to the main airport used by the participants or/and with good access to public transport</p> <p>Encourage the use of public transportation or try to provide shuttles/ group transportation for locations where public transportation is not feasible</p> <p>When reasonable, encourage participants to offset their individual carbon emissions when</p>	<p>none</p> <p>↗ might be associated with an extra cost</p> <p>none</p> <p>↘</p> <p>None</p>	<p>Vita</p> <p>Vita</p> <p>Vita</p> <p>Vita</p> <p>Vita/Misha</p>

		using transport to attend any of CCAFS related. The possibility of voluntary offsetting should be assessed for each event as a part of the planning process meetings/events	none	Misha/Anne
		Keep investigating new opportunities and tools for reducing event related carbon emissions		
Publications	Reduce emissions generated by transport and shipping of publications	Continue to implement and improve on the initiatives implemented in 2013 including printing in host countries, printing on recycled/eco certified paper	↘ less costs associated w shipping	Vanessa
		Reduce the number of printed publications for events and increase the number of USBs. In anticipation of this, we have already manufactured 1000 CCAFS branded USB sticks for future events	↘ less cost associated w printing ↗ buying USB-sticks (possibility of recycling)	Vanessa
Scope 2				
Office	To reduce emissions generated by CU CPH office	Continue to encourage eco-friendly office behavior	None	Misha/Anne
		Continue collaboration with Department and Green Campus	↗ if deciding to go for e.g. isolation solution	Misha/Anne
		Continue to look into paper-smart solutions	none	Vanessa